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Via ECF Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: Notice of *Ex Parte* Written Presentation by Polaris Wireless, Wireless E911 Location Accuracy Requirements PS Docket No. 07-114

Dear Secretary Dortch:

Polaris Wireless submits this letter to reinforce approval of the Fifth Report and Order as currently drafted. There are many comments being filed that confuse the clarity of a z-axis measurement metric and introduce unnecessary and ill-timed complexity into the proceedings.

The Fourth Report and Order provided two options for carrier compliance for vertical location: (1) dispatchable Location (DL) and (2) z-axis technology.¹ Regarding z-axis technology, industry was asked to provide a recommended accuracy metric which was provided by CTIA in August 2018 and that was based on independent industry testing that was open to any vendor.² Two vendors, Polaris Wireless and NextNav, participated in this testing and presented their solutions and performance for public review and scrutiny.³

The Commission's Fifth Report and Order⁴ follows through on the Fourth Report and Order by establishing a metric for z-axis technology for compliance. The Fifth Report and Order does not eliminate DL as an option for compliance. The Fifth Report and Order does, however, recognize potential improvements in vertical location capabilities by establishing a Fifth Further

¹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Fourth Report and Order, FCC 15-9 (Feb. 3, 2015).

² CTIA, PS Docket No. 07-114, Submission of Z-Axis Metric and Report (filed Aug. 3, 2018).

³ *Id.*; see also Location Test Bed, LLC Report on Stage Z, PS Docket No. 07-114 (filed Aug. 3, 2018).

⁴ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Draft Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, FCC-CIRC1911-02 (rel. Oct. 29, 2019).

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Notice of Proposed Rulemaking (FNPRM) seeking industry input on methods and performance for delivering improved location of E911 callers. This is a clear and clean Order that establishes a z-axis metric as a carrier option for compliance by April 2021 and sets the stage for ongoing improvements.

CTIA has asked that the Commission recognize in the Order that collaboration is required among “wireless service providers, handset and operating system (OS) providers, and solutions providers to support wireless 9-1-1 calling capabilities, including vertical location.”⁵ Polaris Wireless agrees that collaboration among these stakeholders is necessary to implement solutions within the established milestones. To this end, Polaris Wireless has contacted handset manufacturers, OS providers, chipmakers, and other technology vendors. While there is some discussion, there is little progress absent a clear mandate, which the Order provides. The Commission may not have the authority to compel these companies to work with all public safety stakeholders, but the Commission could address the lack of meaningful cooperation and progress in framing questions it wants addressed in the FNPRM. Polaris Wireless remains a committed and involved stakeholder in support of this Order.

Google has recently introduced “floor label” as an optional alternative to elevation within +/- 3 meters for consideration in the Order.⁶ Introducing such an option to the Order at this point is not practical as it lacks sufficient information, tested performance data, public scrutiny, and competitive alternatives. This option belongs in the FNPRM. There is no evidence in the record or known to Polaris Wireless privately that the adoption of a 3-meter z-axis measurement will preclude further refinement of existing metrics or the consideration of additional location capabilities to serve more precise and actionable location of emergency callers.

Polaris Wireless understands APCO’s desire for precise floor-level information. That said, their recent ex parte⁷ warrants a few responses. They cite the Order as effectively mandating carriers to adopt either Polaris Wireless or NextNav solutions, which precludes other technologies and innovations. The Order is not so prescriptive as to limit options to just Polaris Wireless and NextNav. Other vendors are certainly able to present their solutions for consideration by the carriers.

⁵ CTIA, Notice of Ex Parte, PS Docket No. 07-114, at 2 (filed Nov. 5, 2019).

⁶ Google, Notice of Ex Parte, PS Docket No. 07-114, at 2-3 (filed Nov. 8, 2019).

⁷ APCO International, Notice of Ex Parte, Meeting with Commissioner Rosenworcel and Travis Litman, PS Docket No. 07-114, at 2 (filed Nov. 12, 2019).

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Additionally, APCO states concern that the Order may fail to provide incentives for additional technologies and innovations.⁸ The Fourth Report and Order was adopted nearly five years ago and technology vendors have had equal opportunities to develop, present, and test a variety of vertical location solutions. Polaris Wireless and NextNav rose to the challenge. In fact, both vendors had already begun development of vertical location capabilities by the time the Fourth Report and Order was adopted. Changing the rules at this late stage to incentivize new entrants only undermines incentives for true and early innovators.

Another concern promulgated by APCO⁹ is that z-axis measurements that presented as Height above Ellipsoid (HAE) are not usable by Public Safety. However, the International Association of Firefighters stated that the “proposed 3-meter metric would provide emergency responders with technology which can measurably improve response time and save lives today.”¹⁰ Further, the International Association of Fire Chiefs stated that emergency responders can, in fact, act upon HAE and Height Above Ground Level measurement data.¹¹

Finally, Apple recently voiced concerns regarding data privacy.¹² Polaris Wireless supports subscriber privacy initiatives and is in general agreement with NextNav’s response to Apple’s filing.¹³ The Polaris Wireless solution does not require the retention of subscriber location or any other subscriber personally identifiable information.

In summary, there is nothing in the record that warrants any changes to the Fifth Report and Order as drafted, which Polaris Wireless fully supports. As set forth in our Reply Comments¹⁴ and the visits we have made to the FCC, including most recently the visits reflected in our Ex Parte statement of November 13,¹⁵ Polaris Wireless remains supportive of public safety initiatives, intends to collaborate with other carriers and stakeholders to expeditiously implement

⁸ *Id.* at 2.

⁹ APCO International, Notice of Ex Parte, Meeting with Commissioner Starks, PS Docket No. 07-114, at 2 (filed Nov. 12, 2019).

¹⁰ International Association of Fire Fighters, Notice of Ex Parte, PS Docket No. 07-114 (filed Nov. 7, 2019).

¹¹ International Association of Fire Chiefs, Notice of Ex Parte, PS Docket No. 07-114 (filed Nov. 13, 2019).

¹² Apple, Notice of Ex Parte, PS Docket No. 07-114, at 1 (filed Nov. 12, 2019).

¹³ NextNav LLC, Notice of Ex Parte, PS Docket No. 07-114, at 2 (filed Nov. 13, 2019).

¹⁴ Polaris Wireless Reply Comments to the Fourth Further Notice of Proposed Rulemaking, PS Docket No. 07-114 (filed June. 18, 2019); *see also* Polaris Wireless Reply Comments to the Vertical (Z-Axis) Accuracy Metric Proposed by the Nationwide Wireless Carriers, PS Docket No. 07-114 (filed Oct. 11, 2018).

¹⁵ Polaris Wireless, Notice of Ex Parte, PS Docket No. 07-114 (filed Nov. 13, 2019).

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z-axis solutions, and looks forward to contributing to the continuing evolution of location solutions by participating in the FNPRM.

Respectfully submitted,



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